

Figure 1

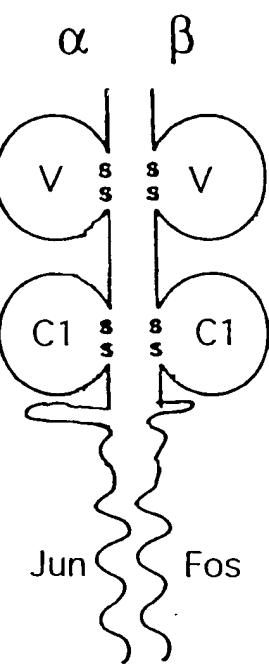
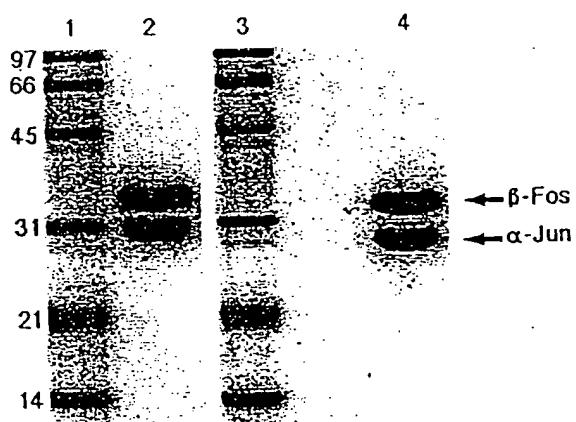


Figure 2



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Figure 3

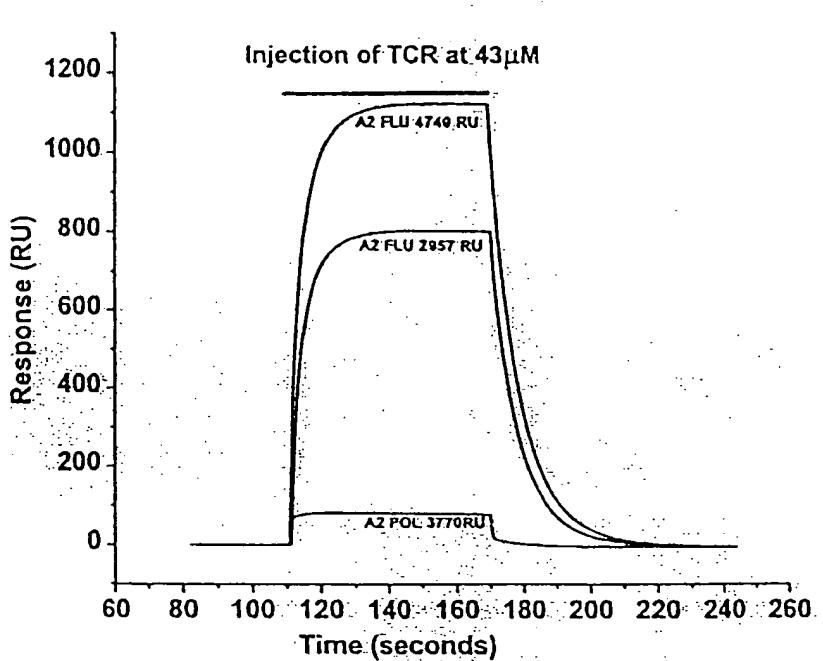


Figure 4

A

Poly-C 'anchor primer':

Xba I
5'- TAA ATA CTC GAG GCG CGC CCC CCC CCC CCC CCC CCC -3'

BTCR α chain constant region specific primer:

Xma I
5'- ATA TAA CCC GGG GAA CCA GAT CCC CAC AGG AAC TTT CTG CCC TGG CGA -3'

CTCR β chain constant region specific primer:

Xma I
5'- ATA TAA CCC GGG GAA CCA GAT CCC CAC AGT CTG CTC TAC CCC AGG CC -3'

Figure 5**A***c-jun 5' primer:*

Xma I

5' - CATAACCCGGGGTAGAATGCCCGGCTGGAG -3'**B***c-jun 3' primer:*

Xho I

5' - GTGTCGAGGATCCTAGTAGTCATGACTTTCTGTTAAGCTGTGC -3'

Bam HI

C*c-fos 5' primer:*

Xma I

5' - CATAACCCGGGGTCTGACTGATACACTCCAAGCGGAG -3'**D***c-fos 3' primer:*

Xho I

5' - TGTGTCGAGGATCCTAGTAAGCTGCCAGGATGAACTCTAGTTTC -3'

Bam HI

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Figure 6.

A

5' - R I A R L E K V K T L K A Q N S E L A
AGA ATC GCC CGG CTG GAG GAA AAA ACC TTG AAA GCT CAG AAC TCG GAG CTG GCG

S	T	A	N	M	L	R	E	Q	V	A	Q	L	K	Q	K	V	M	N	Y	
TCC	ACG	GCC	AAC	ATG	CTC	AGG	GAA	CAG	GTG	GCA	CAG	CTT	AAA	CAG	AAA	GTC	ATG	AAC	TAC	-3'

C-jun leucine zipper DNA and amino acid (one-letter code) sequences as fused to TCR alfa chains.

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5' - CTG ACT GAT ACA CTC CAA GCG GAG ACA GAC CAA CTA GAA GAT GAG AAG TCT GCT TTG CAG

T E I A N L K E K E F I L A A Y
ACC GAG ATT GCC AAC CTG CTG AAG GAG GAA AAA CTA GAG TTC ATC CTG GCA GCT TAC -3'

C-fos leucine zipper DNA and amino acid (one-letter code) sequences as fused to TCR beta chains.

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Figure 7

A

Mutation of cysteine to serine, forwards (sense) primer, indicating amino acid sequence and the mutation:

C
↓
D S R Y S L S S
5'- GAC TCC AGA TAC AGC CTG AGC AGC CG -3'

B

Mutation of cysteine to serine, backwards (nonsense) primer:

5'- CG GCT GCT CAG GCT GTA TCT GGA GTC -3'

C

Mutation of cysteine to alanine, forwards (sense) primer, indicating amino acid sequence and the mutation:

C
↓
D S R Y A L S S
5'- GAC TCC AGA TAC GCT CTG AGC AGC CG -3'

D

Mutation of cysteine to alanine, backwards (nonsense) primer:

5'- CG GCT GCT CAG AGC GTA TCT GGA GTC -3'

Figure 8

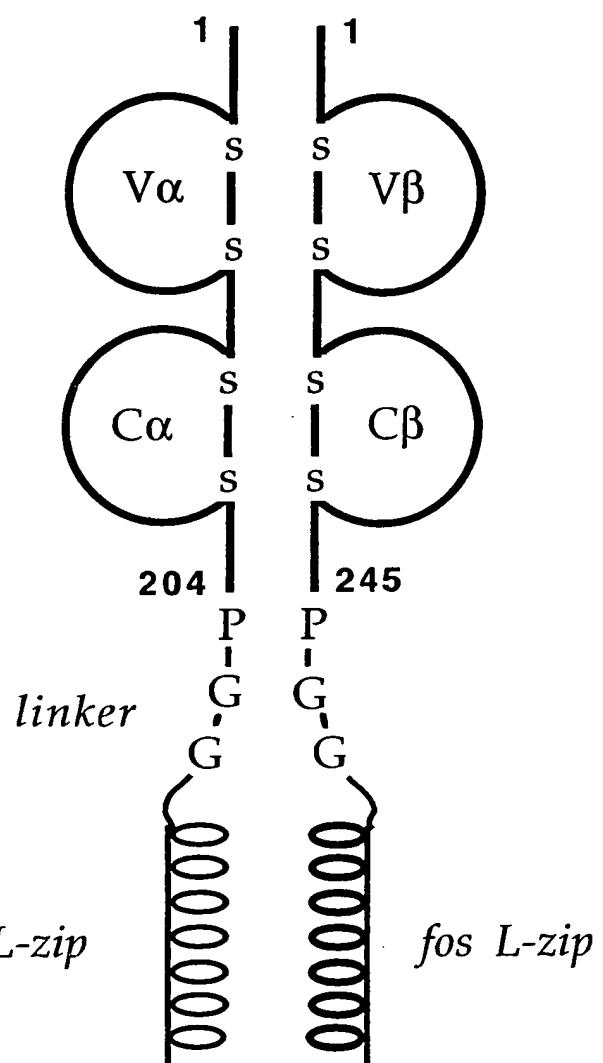


Figure 9

A

5' PCR primer for the human V α 10.2 chain of the JM22 Influenza Matrix peptide-HLA-A0201 restricted TCR:

M Q L L E Q S P Q F L										
5'- gctctagacat ATG CAA CTa CTa GAA CAa AGt CCT CAG TTT CTA										
Nde I										
S I Q E										
AGC ATC CAA GAG G -3'										

B

5' PCR primer for the human V β 17 chain of the JM22 Influenza Matrix peptide-HLA-A0201 restricted TCR:

M V D G G I T Q S										
5'- gctctagacat ATG GTG GAT GGT GGA ATC ACT CAG TOC C -3'										
Nde I										

C

5' PCR primer for the mouse V α 4 chain of the Influenza nucleoprotein peptide-H2-D b restricted TCR:

M D S V T Q M Q G Q V										
5'- gctctagacat ATG GAT TCT GTt ACT CAa ATG CAa GGT CAa GTG										
Nde I										
T L S S										
ACC CTC TCA TCA G -3'										

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Figure 9 (continued)

D

5' PCR primer for the mouse V β 11 chain of the Influenza nucleoprotein peptide-H2-D^b restricted TCR:

M E P T N A G V I Q
5'- gctctagacat ATG GAa CCa ACa AAt GCT GGT GTt ATC CAA
T P R H
ACA CCT AGG CAC -3'

E

5' PCR primer for the human V α 23 chain of the 003 HIV-1 Gag peptide-HLA-A0201 restricted TCR:

M K Q E V T Q I
5'- ggaattccat atg AAA CAa GAG GTt ACa CAa ATT CC -3'
Nde I

F

5' PCR primer for the human V β 5.1 chain of the 003 HIV-1 Gag peptide-HLA-A0201 restricted TCR:

M K A G V T Q T
5'- ggaattccat atg AAa GCT GGA GTt ACT CAA ACT CC -3'

Figure 9 (continued)

G

5' PCR primer for the human V α 2.3 chain of the HTLV-1 Tax peptide-HLA-A0201 restricted A6 TCR:

M Q K E V E Q K
 5' -ccccccc cat ATG CAG AAG GAA GTG GAG CAG AAC -3'
 Nde I

H

5' PCR primer for the human V β 12.3 chain of the HTLV-1 Tax peptide-HLA-A0201 restricted A6 TCR:

M K A G V T Q T
 5' -ccccccc cat ATG AAC GCT GGT GTC ACT CAG ACC -3'
 Nde I

I

5' PCR primer for the human V α 17.2 chain of the HTLV-1 Tax peptide-HLA-A0201 restricted B7 TCR:

M Q Q K N D D Q Q V
 5' -ccccccc cat ATG CAA CAa AAA AAT GAT GAC CAG CAA GTT
 Nde I
 K Q N
 AAG CAA AAT -3'

Figure 9 (continued)

J5' PCR primer for the human V β 12.3 chain of the HTLV-1 Tax peptide-HLA-A0201 restricted B7 TCR:

M N A G V T Q T P K F
5' -ccccccc cat ATG AAC GCT GGT GTC ACT CAG ACC CCA AAA TTC
Nde I

Q
CAG -3'

K3' PCR primer for human C α chains, generally applicable:

5' - cataca ccc ggg GGA ACT TTC TGG GCT GGG GAA GAA GG -3'
Xma I

L3' PCR primer for human C β chains, generally applicable:

5' - cataca ccc ggg GTC TGC TCT ACC CCA GGC CTC -3'
Xma I

Figure 10

TCR alfa>

```

M Q L L E Q S P Q F L S I Q E G E N L T
ATGCAaCTaCTaGAaCAaAGtCCTCAGTTCTAAGCATCCAAGAGGGAGAAATCTCACT

V Y C N S S S V F S S L Q W Y R Q E P G
GTGTAUTGCAACTCCTCAAGTGTGTTCCAGCTTACAATGGTACAGACAGGAGCCTGGG

E G P V L L V T V V T G G E V K K L K R
GAAGGCCTGTCCTCCTGGTGACAGTAGTTACGGTGGAGAAGTGAAGAAGCTGAAGAGA

L T F Q F G D A R K D S S L H I T A A Q
CTAACCTTTCAAGTTGGTATGCAAGAAAGGACAGTTCTCCACATCACTGCGGCCAG

P G D T G L Y L C A G A G S Q G N L I F
CCTGGTGATAACAGGCCTCTACCTCTGTGCAGGAGGGAGCCAAGGAAATCTCATCTT

G K G T K L S V K P N I Q N P D P A V Y
GGAAAAGGCACTAAACTCTCTGTAAACCAAATATCCAGAACCTGACCCGTGGTGTAC

Q L R D S K S S D K S V C L F T D F D S
CAGCTGAGAGACTCTAAATCCAGTGACAAGTCTGTCTGCCTATTCAACGATTGATTCT

Q T N V S Q S K D S D V Y I T D K T V L
CAAACAAATGTGTCACAAAGTAAGGATTCTGATGTATATCACAGACAAACTGTGCTA

D M R S M D F K S N S A V A W S N K S D
GACATGAGGTCTATGGACTTCAAGAGCAACAGTGCTGTCGGCTGGAGCAACAAATCTGAC

F A C A N A F N N S I I P E D T F F P S
TTTGCATGTGCAAACGCCCTCAACAAACAGCATTATTCCAGAACACCTCTTCCCCAGC

<TCR alfa linker c-jun>
P E S S P G G R I A R L E E K V K T L K
CCAGAAAGTTCCCCGGGGGTAGAATCGCCCGCTGGAGGAAAAAGTGAACCTTGAAA

A Q N S E L A S T A N M L R E Q V A Q L
GCTCAGAACTCGGAGCTGGCGTCCACGGCCAACATGCTCAGGGAACAGGTGGCACAGCTT

K Q K V M N Y *
AAACAGAAAGTCATGAACCTACTAG

```

Figure 11

TCR beta>

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M V D G G I T Q S P K Y L F R K E G Q N
ATGGTGGATGGTGGAAATCACTCAGTCCCCAAAGTACCTGTTAGAAAGGAAGGACAGAAT

V T L S C E Q N L N H D A M Y W Y R Q D
GTGACCCCTGAGTTGTGAACAGAACATTGAACCACGATGCCATGTACTGGTACCGACAGGAC

P G Q G L R L I Y Y S Q I V N D F Q K G
CCAGGGCAAGGGCTGAGATTGATCTACTACTCACAGATAGTAAATGACTTTAGAAAGGA

D I A E G Y S V S R E K K E S F P L T V
GATATAGCTGAAGGGTACAGCGTCTCTGGGAGAAGAAGGAATCCTTCTCTCACITG

T S A Q K N P T A F Y L C A S S S R S Sq
ACATCGGCCAAAAGAACCCGACAGCTTCTATCTCTGTGCCAGTAGTTGAGGAGCTCC

Y E Q Y F G P G T R L T V T E D L K N V
TACGAGCAGTACTTCGGGCCGGCACCGGTCACGGTCACAGAGGACCTGAAAAACGTT

F P P E V A V F E P S E A E I S H T Q K
TTCCCACCCGAGGTCGCTGTGTTGAACCATCAGAAGCAGAGATCTCCCACACCCAAAAG

A T L V C L A T G F Y P D H V E L S W W
GCCACACTGGTGTGCCCTGGCACAGGTTCTACCCGACCACGTGGAGCTGAGCTGGTGG

V N G K E V H S G V S T D P Q P L K E Q
GTGAATGGGAAGGAGGTGCACAGTGGGTCAAGCACAGACCCGCAGCCCCCTCAAGGAGCAG

P A L N D S R Y C L S S R L R V S A T F
CCCGCCCTCAATGACTCCAGATACTGCCCTGAGCAGCCGCTGAGGGTCTGGCCACCTTC

W Q N P R N H F R C Q V Q F Y G L S E N
TGGCAGAACCCCGCAACCAACTCCGCTGTCAAGTCCAGTTCTACGGGCTCTGGAGAAT

D E W T Q D R A K P V T Q I V S A E A W
GACGAGTGGACCCAGGATAAGGCCAAACCTGTACCCAGATCGTCAGCCGAGGCCCTGG

<TCR beta linker c-fos>
G R A D P G G L T D T L Q A E T D Q L E
GGTAGAGCAGACCCgggGGTCTGACTGATAACTCCAAGCGGAGACAGATCAACTTGAA

D K K S A L Q T E I A N L L K E K E K L
GACAAGAAGTCTGCGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAAAAACTA

E F I L A A A Y *
GAGTTCATCCTGGCAGCTTACTAG

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Figure 12

TCR alfa>

M N Y S P A L V T V M L F V F G R T H G
ATGAACTATTCTCAGCTTAGTGAATGTGATGCTGTTGTGTTGGGAGGACCCATGGA

D S V T Q M Q G Q V T L S E D D F L F I
GACTCAGTAACCCAGATGCAAGGTCAAGTGACCTCTCAGAACAGACTTCCTATTTATA

N C T Y S T T W Y P T L F W Y V Q Y P G
AACTGTACTTATTCAACCACATGGTACCCGACTCTTCTGGTATGTCCAATATCCTGGAA

E G P Q L L L K V T T A N N K G I S R G
GAAGGTCCACAGCTCCCTTGAAAGTCACAACAGCCAACAACAGGGAAATCAGCAGAGGT

F E A T Y D K G T T S F H L Q K A S V Q
TTTGAAGCTACATATGATAAAGGAACAACGTCCCTCCACTTGAGAAAGCCTCAGTGCAG

E S D S A V Y Y C V L G D R Q G G R A L
GAGTCAGACTCTGCTGTACTACTGTGTGCTGGTATCGACAGGGAGGCAGAGCTCTG

I F G T G T T V S V S P N I Q N P E P A
ATATTGGAACAGGAACCACGGTATCAGTCAGCCCCAACATCCAGAACCCAGAACCTGCT

V Y Q L K D P R S Q D S T L C L F T D F
GTGTACCAAGTTAAAGATCCTCGGTCTCAGGACAGCACCCCTCTGCCCTGTTCAACCGACTTT

D S Q I N V P K T M E S G T F I T D K T
GACTCCAAATCAATGTGCCGAAAACCATGGAATCTGAAACGTTCATCACTGACAAAAC

V L D M K A M D S K S N G A I A W S N Q
GTGCTGGACATGAAAGCTATGGATTCCAAGAGCAATGGGCCATTGCCCTGGAGCAACCAG

T S F T C Q D I S K E T N A T Y P S S D
ACAAGCTTCACCTGCCAAGATATCTCAAAGAGACCAACGCCACCTACCCAGTTCAAC

<TCR alfa linker c-jun>
V P G G R I A R L E E K V K T L K A Q N
GTTcccgggGGTAGAACATGCCGGCTGGAGGAAAAAGTGAACCTTGAAAGCTCAGAAC

S E L A S T A N M L R E Q V A Q L K Q K
TCGGAGCTGGCGTCCACGGCAACATGCTCAGGGAACAGGTGGCACAGCTTAAACAGAAA

V M N Y *
GTCATGAACTACTAG

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Figure 13

TCR beta>
M K A G V T Q T P R Y L I K T R G Q Q V
ATGAAAGCTGGAGTTACTCAAACCTCCAAGATATCTGATCAAACAGAGAGGACAGCAAGTG

T L S C S P I S G H R S V S W Y Q Q T P
ACACTGAGCTGCTCCCCATCTCTGGGCATAGGAGTGTATCCTGGTACCAACAGACCCCA

G Q G L Q F L F E Y F S E T Q R N K G N
GGACAGGGCCTTCAGTTCTCTTGAATACTTCAGTGAGACACAGAGAAACAAAGGAAAC

F P G R F S G R Q F S N S R S E M N V S
TTCCCTGGTCGATTCTCAGGGCGCCAGTTCTCTAATCTCGCTCTGAGATGAATGTGAGC

T L E L G D S A L Y L C A S S F D S G N
ACCTTGGAGCTGGGGACTCGGCCCTTATCTTGCGCCAGCAGCTTCGACAGCGGGAAAT

S P L H F G N G T R L T V T E D L N K V
TCACCCCTCCACTTGGAACGGGACCAGGCTCACTGTGACAGAGGACCTGAACAAGGTG

F P P E V A V F E P S E A E I S H T Q K
TTCCCACCCGAGGTGCGCTGTGTTGAGCCATCAGAACAGAGATCTCCCACACCCAAAAG

A T L V C L A T G F F P D H V E L S W W
GCCACACTGGITGCGCTGGCCACAGGCTTCTCCCTGACCACGTGGAGCTGAGCTGGTGG

V N G K E V H S G V S Q D P Q P L K E Q
GTGAATGGGAAGGAGGTGCACAGTGGGTCAGCCAGGACCCGAGCCCCCTCAAGGAGCAG

P A L N D S R Y S L S S R L R V S A T F
CCC GCC CT CA AT G ACT CC AGA TA C AGC CT GAG C AGC CG CT GAG GG T CT CG G CC AC C TT C

W Q N P R N H F R C Q V Q F Y G L S E N
TGGCAGAACCCCGCAACCACCTCCGCTGTCAAGTCCAGTTCTACGGGCTCTCGGAGAAT

D E W T Q D R A K P V T Q I V S A E A W
GACGAGTGGACCCAGGATAGGGCAAACCTGTCACCCAGATGTCAGCGCCGAGGCCTGG

<TCR beta linker c-fos>
G R A D P G G L T D T L Q A E T D Q L E
GGTAGAGCAGACCCGGGGTCTGACTGATACACTCCAAGCGAGACAGATCAACTTGAA

D K K S A L Q T E I A N L L K E K E K L
GACAAGAAGTCTGCGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAAAAACTA

E F I L A A Y *
GAGTTCATCCTGGCAGCTTACTAG

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Figure 14

TCR alfa>

M K Q E V T Q I P A A L S V P E G E N L
ATGAAACAAGAAGTTACACAGATTCTCGCAGCTGTGAGTGTCCCAGAAGGAGAAAACCTTG

V L N C S F T D S A I Y N L Q W F R Q D
GTTCTCAACTGCAGTTTCACTGATAGCGCTATTACAACCTCCAGTGGTTAGGCAGGAC

P G K G L T S L L I Q S S Q R E Q T S
CCTGGAAAGGTCTCACATCTCTGTTGCTTATTCAAGTCAGAGAGAGCAAACAAAGT

G R L N A S L D K S S G R S T L Y I A A
GGAAGACTTAATGCCTCGTGGATAAATCATCAGGACGTAGTACTTTATACATTGCAGCT

S Q P G D S A T Y L C A V T N F N K F Y
TCTCAGCCTGGTGACTCAGCCACCTACCTCTGTGCTGTGACCAACTCAACAAATTAC

F G S G T K L N V K P N I Q N P D P A V
TTGGATCTGGACCAAACCTCAATGTAACCAATATCCAGAACCTGACCCCTGCCGTG

Y Q L R D S K S S D K S V C L F T D F D
TACCAAGCTGAGAGACTCTAAATCCAGTGACAAGTCTGTCTGCCTATTCAACGATTGAT

S Q T N V S Q S K D S D V Y I T D K T V
TCTCAAACAAATGTGTCACAAAGTAAGGATTCTGATGTATATCACAGACAAAATGTG

L D M R S M D F K S N S A V A W S N K S
CTAGACATGAGGTCTATGGACTTCAAGAGCAACAGTGTCTGGCCTGGAGCAACAAATCT

D F A C A N A F N N S I I P E D T F F P
GACTTTGCATGTGCAAACGCCCTCAACAAACAGCATTATTCCAGAACACCTTCTCCCC

<TCR alfa linker c-jun>
S P E S S P G G R I A R L E E K V K T L
AGCCAGAAAGTTCcccgggGGTAGAATGCCGGCTGGAGGAAAAGTGAACACCTTG

K A Q N S E L A S T A N M L R E Q V A Q
AAAGCTCAGAACTCGGAGCTGGCGTCCACGGCCAACATGCTCAGGGAACAGGTGGCACAG

L K Q K V M N Y *
CTTAAACAGAAAGTCATGAACCTAG

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Figure 15

TCR beta>

M K A G V T Q T P R Y L I K T R G Q Q V
ATGAAAGCTGGAGTTACTCAAACCTCAAGATATCTGATCAAACGAGAGGACAGCAAGTG

T L S C S P I S G H R S V S W Y Q Q T P
ACACTGAGCTGCTCCCTATCTCTGGGCATAGGAGTGTATCCTGGTACCAACAGACCCCCA

G Q G L Q F L F E Y F S E T Q R N K G N
GGACAGGGCCTTCAGTTCTCTTGAATACTTCAGTGAGACACAGAGAAACAAAGGAAAC

F P G R F S G R Q F S N S R S E M N V S
TTCCCTGGTCGATTCTCAGGGGCCAGTTCTCTAACTCTCGCTCTGAGATGAATGIGAGC

T L E L G D S A L Y L C A S S F D S G N
ACCTTGGAGCTGGGGACTCGGCCCTTATCTTGCGCCAGCAGCTCGACAGCGGGAAAT

S P L H F G N G T R L T V T E D L N K V
TCACCCCTCCACTTGGAACGGGACCAGGCTCACTGTGACAGAGGACCTGAACAAGGTG

F P P E V A V F E P S E A E I S H T Q K
TTCCCACCCAGGTCGCTGTGTTGAGCCATCAGAAGCAGAGATCTCCACACCCAAAAG

A T L V C L A T G F F P D H V E L S W W
GCCACACTGGTGTGCCCTGCCACAGGCTTCTCCCTGACCACGTGGAGCTGAGCTGGTGG

V N G K E V H S G V S Q D P Q P L K E Q
GTGAATGGGAAGGAGGTGCACAGTGGGTCAGCCAGGACCCGAGCCCTCAAGGAGCAG

P A L N D S R Y S L S S R L R V S A T F
CCCGCCCTCAATGACTCCAGATAACGCCCTGAGCAGCCGCTGAGGGTCTCGGCCACCTTC

W Q N P R N H F R C Q V Q F Y G L S E N
TGGCAGAACCCCGCAACCACTTCCGCTGTCAAGTCCAGTTACGGGCTCTCGGAGAAT

D E W T Q D R A K P V T Q I V S A E A W
GACGAGTGGACCCAGGATAGGGCAAACCTGTCACCCAGATGTCAGCGCCGAGGCTGG

<TCR beta linker c-fos>

G R A D P G G L T D T L Q A E T D Q L E
GGTAGAGCAGACcccgggGGCTGACTGATACTCCAAGGGAGACAGATCAACTTGAA

D K K S A L Q T E I A N L L K E K E K L
GACAAGAAGTCTGCGTTGCAGACCGAGATTGCAATCTACTGAAAGAGAAGGAAACTA

E F I L A A Y *
GAGTCATCCTGGCAGCTTACTAG

Figure 16

TCR alfa>

M Q K E V E Q N S G P L S V P E G A I A
atg CAGAAGGAAGTGGAGCAGAACCTCTGGACCCCTCAGTGTTCCAGAGGGAGGCCATTGOC

S L N C T Y S D R G S Q S F F W Y R Q Y
TCTCTCAACTGCACCTACAGTGACCGAGGTCCCCAGTOCTCTCTCTGGTACAGACAATAT

S G K S P E L I M S I Y S N G D K E D G
TCTGGAAAAGCCTGAGTTGATAATGTOCATATACTCCAAATGGTGACAAAGAAGATGGA

R F T A Q L N K A S Q Y V S L L I R D S
AGGTTTACAGCACAGCTCAATAAGCCAGCCAGTATGTTCTCTGCTCATCAGAGACTCC

Q P S D S A T Y L C A V T T D S W G K L
CAGCCAGTGATTCAGCCAOCTAACCTCTGTCGGTTACAACCTGACAGCTGGGGAAATTG

Q F G A G T Q V V V T P D I Q N P D P A
CAGTTGGAGCAGGGACCCAGGTTGCTCACCCCCAGATACTCAGAACCCCTGACCCCTGOC

V Y Q L R D S K S S D K S V C L F T D F
GIGTACCTGAGAGACTCTAAATCCAGTGACAAAGTCTGTCGGCTATTCACOGATTIT

D S Q T N V S Q S K D S D V Y I T D K T
GATTCTCAAACAAATGIGTACAAAGTAAGGATTCTGATGIGTATATCACAGACAAAAT

V L D M R S M D F K S N S A V A W S N K
GIGCTAGACATGAGGTCTATGGACTTCAAGAGCAACAGTGCTGTCGGCTGGAGCAACAAA

S D F A C A N A F N N S I I P E D T F F
TCTGACTTTGCAATGTGCAAAAGCCTTCAACACAGCATTATTCCAGAAGACACCTCTTC

<TCR alfa linker c-jun>

P S P E S S P G G R I A R L E E K V K T
CCCAGCCAGAAAGTCCcccgggGGTAGAAATGCCGGCTGGAGAAAAAGTGAAACC

L K A Q N S E L A S T A N M L R E Q V A
TTGAAAGCTCAGAACTGGAGCTGGCGTCCACGGCCAACATGCTCAGGGAACAGGTGGCA

Q L K Q K V M N Y *
CAGCTAACAGAAAGTCATGAACCTACTAG

Figure 17

TCR beta>

```

M N A G V T Q T P K F Q V L K T G Q S M
atgAAAGCTGGTCACTCAGAOCCTAAATTCCAGGCTCTGAAGACAGGACAGAGCAATG

T L Q C A Q D M N H E Y M S W Y R Q D P
ACACTGCAGTGCGCCAGGATATGAACCATGAATACATGTOCTGGTATGACAAGAACCA

G M G L R L I H Y S V G A G I T D Q G E
GGCACTGGGCTGAGGCTGATTCAATTCTCAGTTGGTGCCTGATCACAGACCAAGGAGAA

V P N G Y N V S R S T T E D F P L R L L
GTCCCCAATGGCTACAATGTCCTCAGATCAACCACAGAGGATTCCCCCTCAGGCTGCTG

S A A P S Q T S V Y F C A S R P G L A G
TGGCTGCTCCCCAGACATCTGCTACTCTGCTGCCAGCAGGCCCCACTAGGGGA

G R P E Q Y F G P G T R L T V T E D L K
GGGGAOCAGACAGCTACTTGGGCCCCACAGGCTCACGGTCACAGAGGACCTGAAA

N V F P P E V A V F E P S E A E I S H T
AACGTGTTOCCACCCGAGGTGGCTGTGTTGACCCATCAGAAGCAGAGATCTCCCCACACC

Q K A T L V C L A T G F Y P D H V E L S
CAAAGGOCACACTGGCTGGCTGGCACAGGCTCTACCCCCGACCACTGGACCTGAGC

W W V N G K E V H S G V S T D P Q P L K
TGGTGGGTGAATGGAACGGAGGTGGCACAGTGGGTCAGCACAGACCCGAGCCCCCTCAAG

E Q P A L N D S R Y A L S S R L R V S A
GAGCAGCCCCGACCTCAATGACTCCAGATAactCTGAGCAACCCCCCTGAGGGCTCCCC

T F W Q N P R N H F R C Q V Q F Y G L S
ACCTCTGGCAGAACCCCCGCAACCCACTTCCGCTGTCAGTCCAGTCTAACGGCTCTGG

E N D E W T Q D R A K P V T Q I V S A E
GAGAATGAAGAGTGGACCCAGGATAGGGCCTAACTGTCACCCAGATGGTCAGGCCCCGAG

<TCR beta linker c-fos>
A W G R A D P G G L T D T L Q A E T D Q
GCCTGGGGTAGACCAAGACCCCCGGGGCTGACTGATACTCAAGGCGAGACAGATCAA

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Continued

21/*sz*

Figure 17 (continued)

L E D K K S A L Q T E I A N L L K E K E
CTTGAAGACAAGAAGTCGGTIGCAGACOGAGATTGCCAATCTACTGAAAGAGAAGGAA

linker Biotinylation tag

K L E F I L A A Y G S G G G L N D I F E
AAACTAGAGTTCACTGGCAGCTTAOggatccGGTGGTGGTCTGAAAGATAATTTTGAA

A Q K I E W H *
GCTCAGAAAAATCGAATGCCATTAAAGCTT

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Figure 18

TCR alfa>

M Q Q K N D D Q Q V K Q N S P S L S V Q
atgCAACAGAAGAAATGATGACCAGCAAGTTAACGAAAAATTCAACCATOCCTGAGOGTCCAG

E G R I S I L N C D Y T N S M F D Y F L
GAAGGAAGAATTCTTCTATTCTGAACTGTGACTATACTAACAGCATGTTGATTTCTTA

W Y K K Y P A E G P T F L I S I S S I K
TGGTACAAAAAAATACCCCTGCTGAAGGTCTACATTCTGATATCTATAAGTCTCATTAAAG

D K N E D G R F T V F L N K S A K H L S
GATAAAAATGAAGATGGAAGATTCACITGCTTAAACAAAGTGCCAAGCACCTCT

L H I V P S Q P G D S A V Y F C A A M E
CTGCACATTGTCGCCCTCCCAGCCTGGAGACTCTGCAGTGTACTCTGIGCAGCAATGGAG

G A Q K L V F G Q G T R L T I N P N I Q
GGAGCCCAGAAGCTGGTATTGGCAAGGAACCAGGCTGACTATCAACCAAATATCCAG

N P D P A V Y Q L R D S K S S D K S V C
AACCCCTGACCCCTGCGGTGACCAAGCTGAGAGACTCTAAATCCAGTGACAAGTCTGCTGC

L F T D F D S Q T N V S Q S K D S D V Y
CTATTCAACGATTCTGATTCTCAAACAAATGTGTACAAAGTAAGGATTCTGATGTGAT

I T D K T V L D M R S M D F K S N S A V
ATCACAGACAAAATCTGCTAGACATGAGGTCTATGGACTTCAGAGCAACAGTGCTGCTG

A W S N K S D F A C A N A F N N S I I P
GCCTGGAGCAACAAATCTGACTTTGCATGTGCAAACGCCCTCAACAAACAGCATTATTCCA

<TCR alfa linker c-jun>

E D T F F P S P E S S S P G G R I A R L E
GAAGACACCTTCTCCCCAGCCAGAAAGTTCCcccggggGGTAAATGGGGCTGGAG

E K V K T L K A Q N S E L A S T A N M L
GAAAAAGTGAAAACCTTGAAGCTCAGAACTGGAGCTGGGTCAAGGGCAACATGCTC

R E Q V A Q L K Q K V M N Y *

AGGGAACAGGTGGCACAGCTTAAACAGAAAGTCATGAACCTAG

Figure 19

TCR beta>

```

M N A G V T Q T P K F Q V L K T G Q S M
atgAAOGCTGGTGTCACTCAGACCOAAAATTCCAGGTOCTGAAGACAGCACAGAGCATG

T L Q C A Q D M N H E Y M S W Y R Q D P
ACACTGCCAGTGTCGCCAGGATATGAACCATGAATACATGTCTGGTATCGACAAGACCCA

G M G L R L I H Y S V G A G I T D Q G E
GGCATGGGCTGAGGCTGATTCAATTACAGTGGTGGTATCACTGACCAAGGAGAA

V P N G Y N V S R S T T E D F P L R L L
GTCCCCAATGGCTACAATGTCCTCCAGATCAACCACAGAGGATTCCCGCTCAGGCTGCTG

S A A P S Q T S V Y F C A S S Y P G G G
TGGCTGCTCCCTOCAGACATCTGTGTACTCTGTGCGAGCAGTTACCAggggGGGGGGGG

F Y E Q Y F G P G T R L T V T E D L K N
TTTAACGAGGAGTACTTGGGGGGGACCCAGGCTCAOGGTACAGAGGACCTGAAAAAC

V F P P E V A V F E P S E A E I S H T Q
GIGTCCCCACCCGAGGTGGTGTGTTGACCATCAGAACGAGAGATCTCCACACACCAA

K A T L V C L A T G F Y P D H V E L S W
AAGGCCACACTGGTGTGCTGGCACAGGCTCTAACCGGACCAAGTGGAGCTGAGCTGG

W V N G K E V H S G V S T D P Q P L K E
TGGTGAATGGFAAGGAGGTGGCACAGTGGGTCAAGCACAGACCGCAGGGCTCAAGGAG

Q P A L N D S R Y A L S S R L R V S A T
CAGCCGCGCCTCAATGACTCCAGATAactCTGAGCAGCGCTGAGGGCTCGGGCACC

F W Q D P R N H F R C Q V Q F Y G L S E
TTCGGCAGgACCCCGCAACCACTTCGGCTGICAAGTOCAGITCTAOGGGCTCTGGAG

N D E W T Q D R A K P V T Q I V S A E A
AATGACCGAGTGGACCCAGGATAGGGCAAACCGCTCACCCAGATGTCAGCGCCGAGGCC

```

Continued.....

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Figure 19 (continued)

<TCR beta linker c-fos>

W G R A D P G G L T D T L Q A E T D Q L
TGGGGTAGAGCAGACCCgggGGTCTGACTGATACTCAAGCGGAGACAGATCAACTT

E D K K S A L Q T E I A N L L K E K E K
GAAGACAAGAAGCTCGGTTGCAGACCGAGATTGCCATCTACTGAAAGAGAAGGAAAAA

linker Biotinylation tag>

L E F I L A A Y G S G G G L N D I F E A
CTAGAGTTCACTGGCAGCTTAAGatccGGTGGTGGTCTGAACGATATTTTGAAGCT

Q K I E W H *
CAGAAAATCGAATGGCATTAAAGCTT

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Figure 20

TCR beta>

```

M N A G V T Q T P K F Q V L K T G Q S M
atgAAAGCTGGTGTCACTCAGACCCAAAATTCCAGGTOCTGAAGACAGGACAGAGCATG

T L Q C A Q D M N H E Y M S W Y R Q D P
ACACTGCAGTGTGCCAGGATATGAACCATGAATACTGCTGGTATGACAAGACCCA

G M G L R L I H Y S V G A G I T D Q G E
GCCATGGGGCTGAGGCTGATTCAATTCACTCAGTTGGTGCTGGTATCACTGACCAAGGAGAA

V P N G Y N V S R S T T E D F P L R L L
GTCCCCAATGGCTACAATGCTCAGATCAACCACAGAGGAATTCCCGCTCAGGCTGCTG

S A A P S Q T S V Y F C A S R P G L A G
TCGGCTGCTOOCCTOOCAGACATCTGTTACTCTCTGTCGCCAGGGACTAGCCCCA

G R P E Q Y F G P G T R L T V T E D L K
GGGCGACCAAGACAGTACTTCGGCGGGCACCCAGCTCACGGTCACAGAGGACCTGAAA

N V F P P E V A V F E P S E A E I S H T
AACGTGTTOCCACCCGACGTGGCTGTTGAGCCATCAGAAGCAGAGATCTCCACACC

Q K A T L V C L A T G F Y P D H V E L S
CAAAGGCCACACTGGTGTGCCACAGGCTCTACCCCGACCAAGTGGAGCTGAGC

W W V N G K E V H S G V S T D P Q P L K
TGGTGGTGAATGGGAGGAGGTGCAAGTGGGTCAAGCAAGAOCGGCAGGCCCCCTCAAG

E Q P A L N D S R Y A L S S R L R V S A
GAGCACCCCGGCCCTCAATGACTCAGATACTCTGACCAAGGCGCTGAGGTCTGGCC

T F W Q D P R N H F R C Q V Q F Y G L S
ACCTCTGGCAGgACCCCGCAACACTTCCCTGTCAAGTCCAGTTCTACGGGCTCTCG

E N D E W T Q D R A K P V T Q I V S A E
CAGAATGACGAGTGGACCCAGGATAGGGCCAAACCTGTCAACCCAGATGTCAGGGCGAG

```

Continued....

Figure 20 (continued)

<TCR beta linker c-fos>

A W G R A D P G G L T D T L Q A E T D Q
CCCTGGGTAGACAGACccgggGGTCTGACTGATACTCCAAGGGAGACAGATCAA

L E D K K S A L Q T E I A N L L K E K E
CTTGAAAGACAAGAAGTCTGGTTCAGACCCAGATTGCAATCTACTGAAAGAGAACGAA

linker Biotinylation tag>

K L E F I L A A Y G S G G G L N D I F E
AAACTAGAGTTCACTGGCAGCTTAACggatccGGTGGTGGTCTGAACGATAATTGGAA

A Q K I E W H *
GCTCAGAAAATGAAATGGCAATTAGCCTT

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Figure 21

Linker<-> fos

P G G L T D T L Q A E T D Q
5'- ccc agg GGT CTG ACT GAT ACA CTC CAA CGG GAG ACA GAT CAA
Xma I

L E D K K S A L Q T E I A N L
CTT GAA GAC AAG AAG TCT GCG TTG CAG ACC GAG ATT GCC AAT CTA

<-lin

L K E K E K L E F I L A A Y G
CTG AAA GAG AAG GAA AAA CTA GAG TTC ATC CTG GCA GCT TAC gga
Bam

Ker-> <- biotinylation tag

S G G G L N D I F E A Q K I E
tcc GGT GGT GGT CTG AAC GAT ATT TTT GAA GCT CAG AAA ATC GAA
HI

W H *

TGG CAT TAA GCT T -3'
Hind III

28/52

Figure 22

A

Reverse primer:

5'-ACACAC GGA TCC GTA AGC TGC GAC GAT GAA CTC GAT TTT CTT-
3'

Bam HI

A. GCTTGTAGGCGGAGGGG

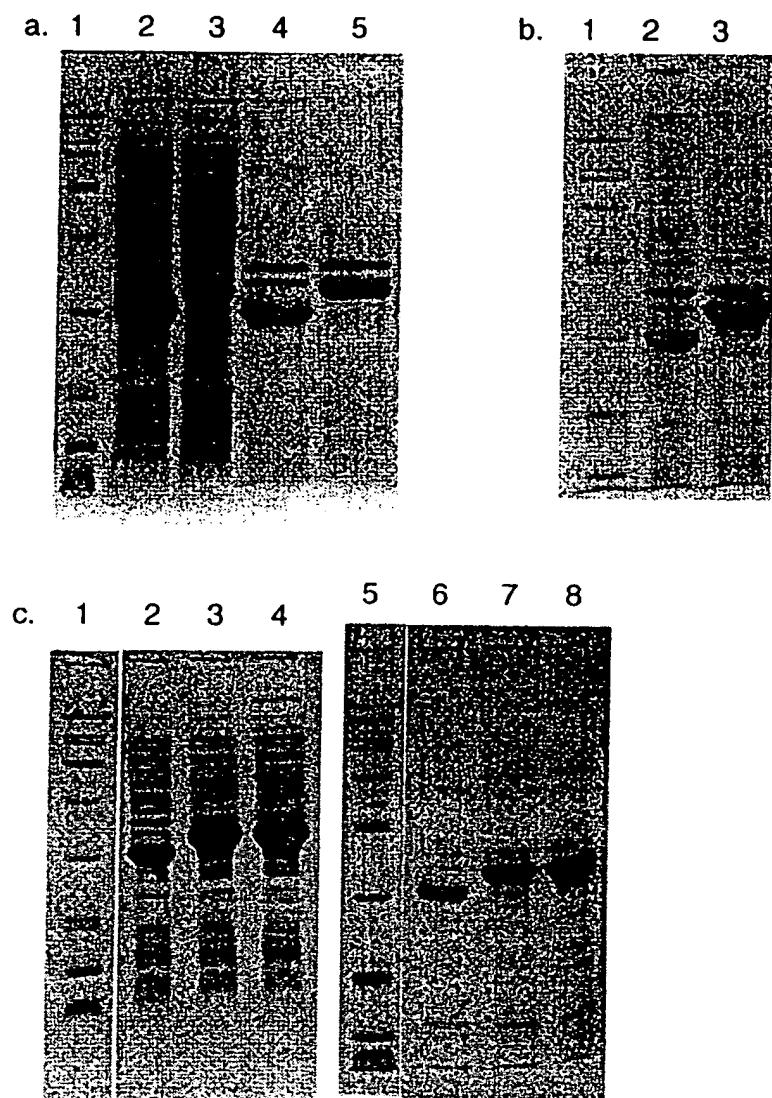


Figure 23

Figure 25.

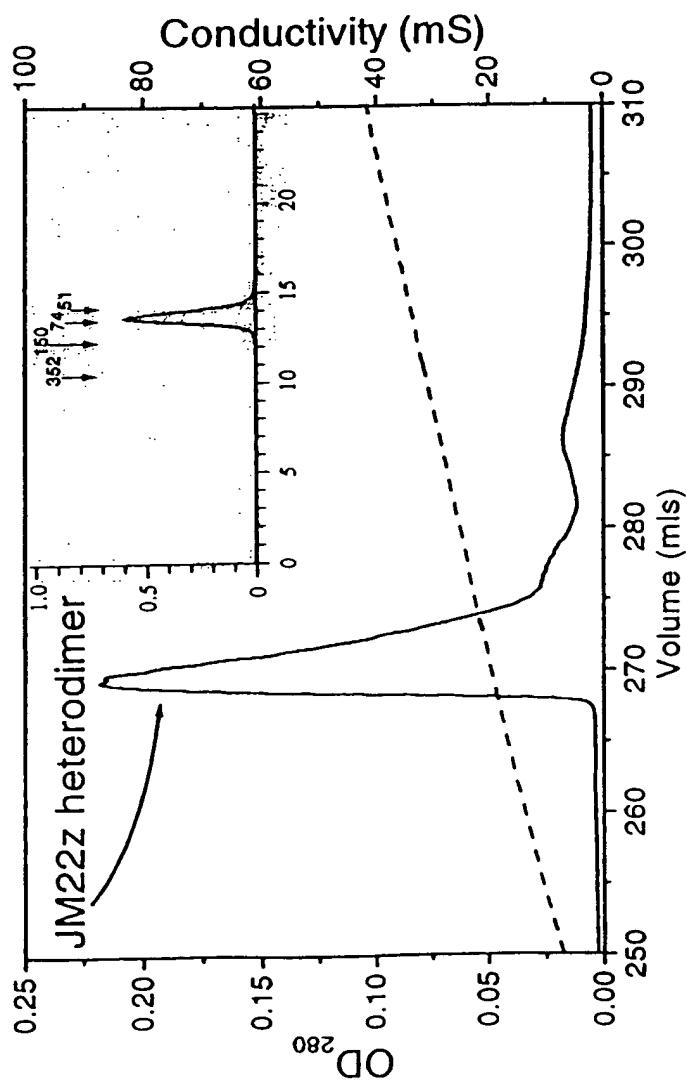
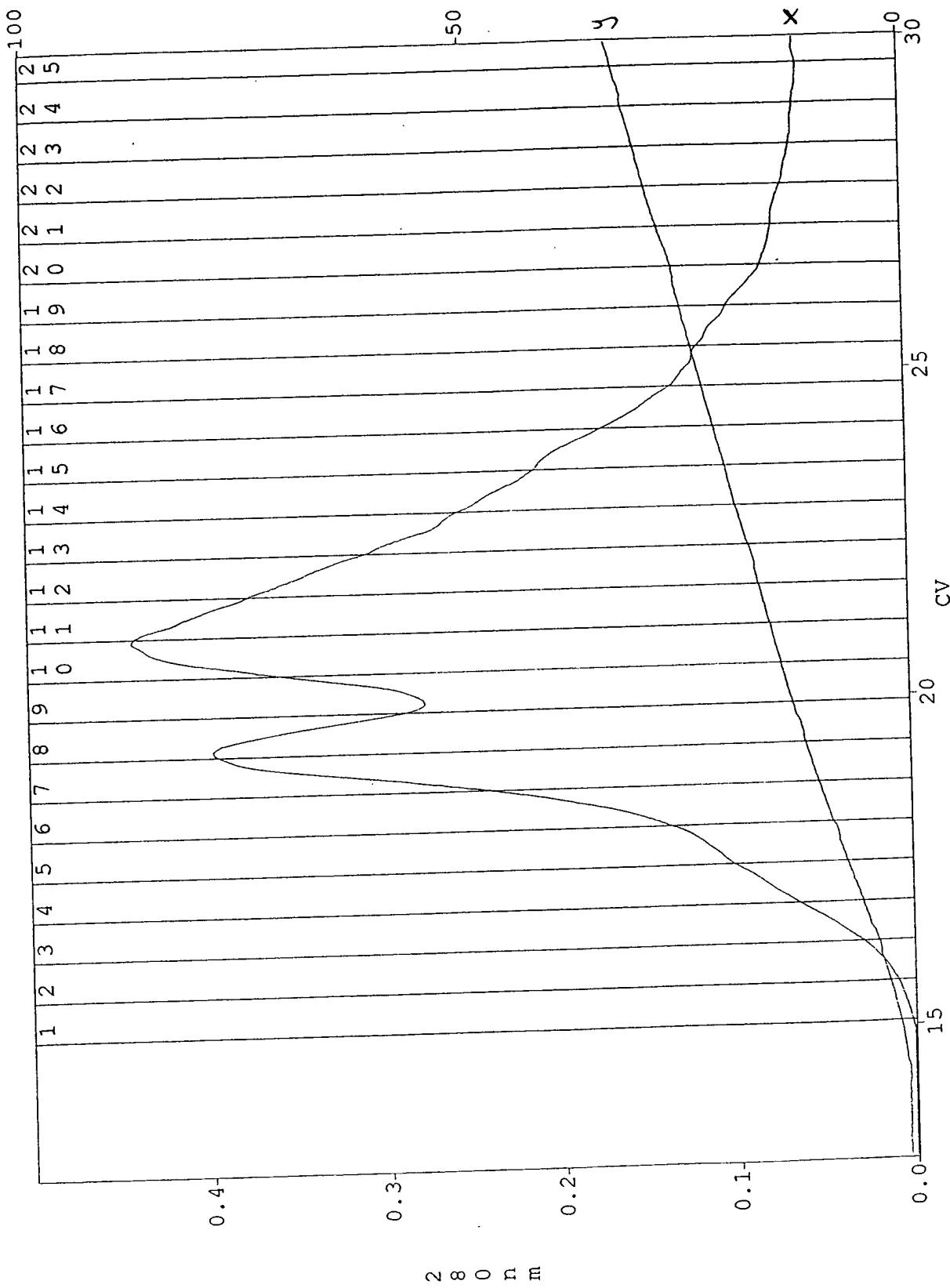


Figure 24.

Figure 26ai

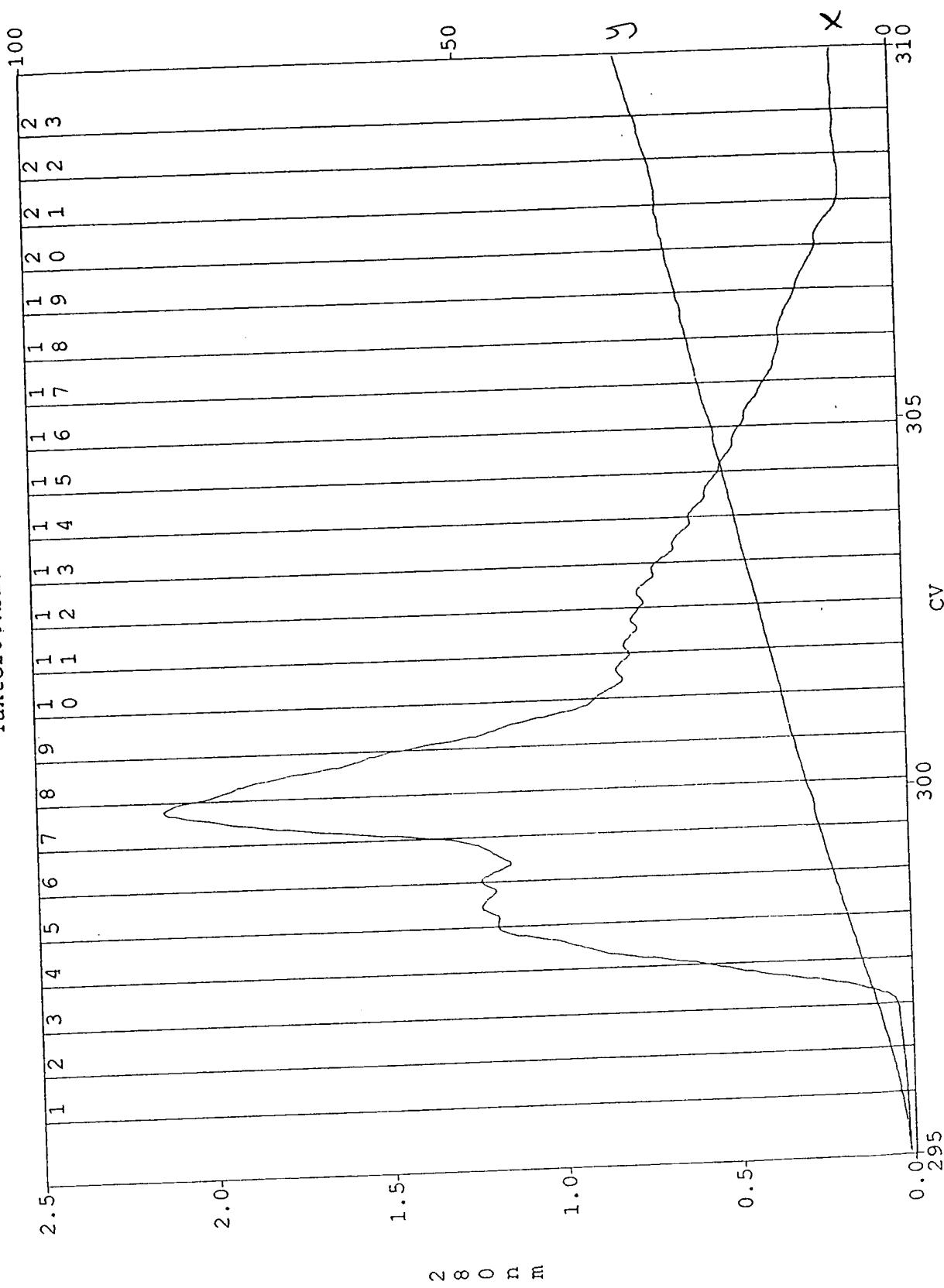
Taxtcr05.bio -



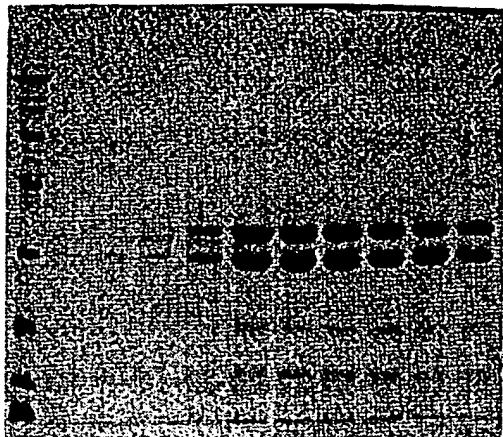
卷之三

Figure 26bi

Taxtcr04.bio -



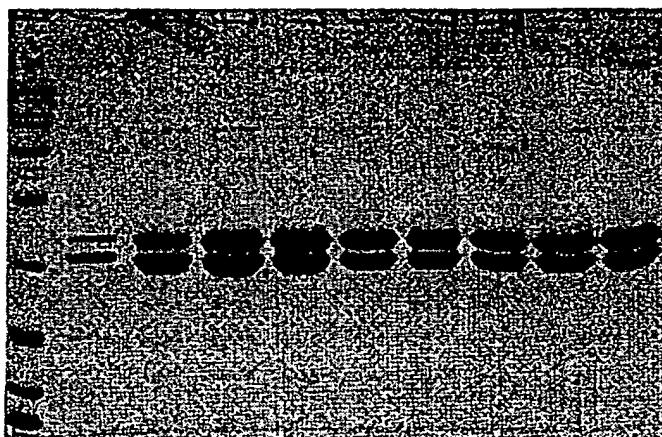
a.ii. 1 2 3 4 5 6 7 8 9 10 11



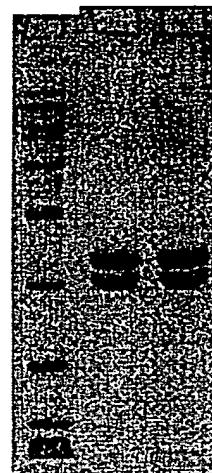
a.iii. 1 2



b.ii. 1 2 3 4 5 6 7 8 9 10



b.iii. 1 2 3



T O O D L E S S I M P L E

Figure 26

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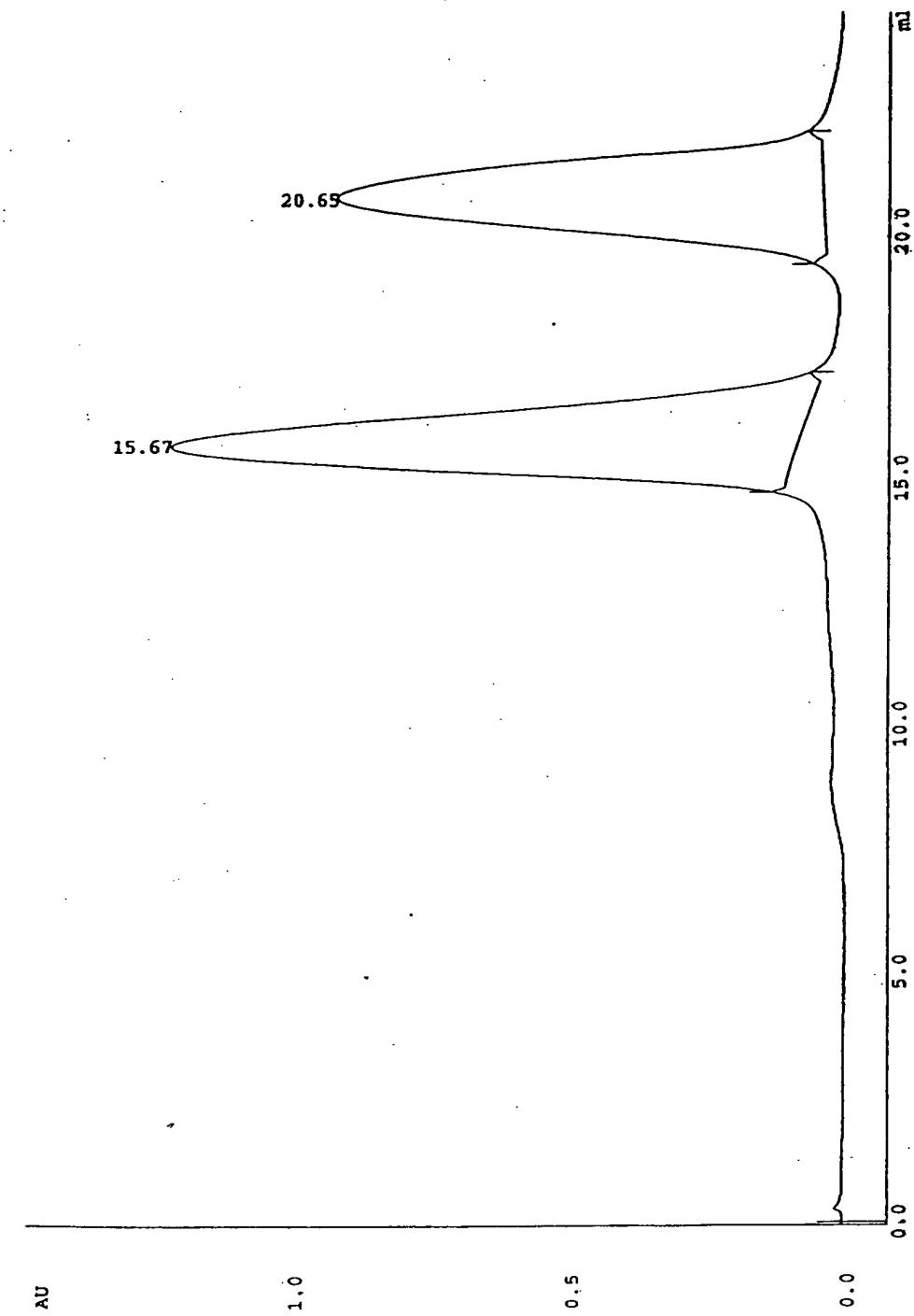


Figure 27

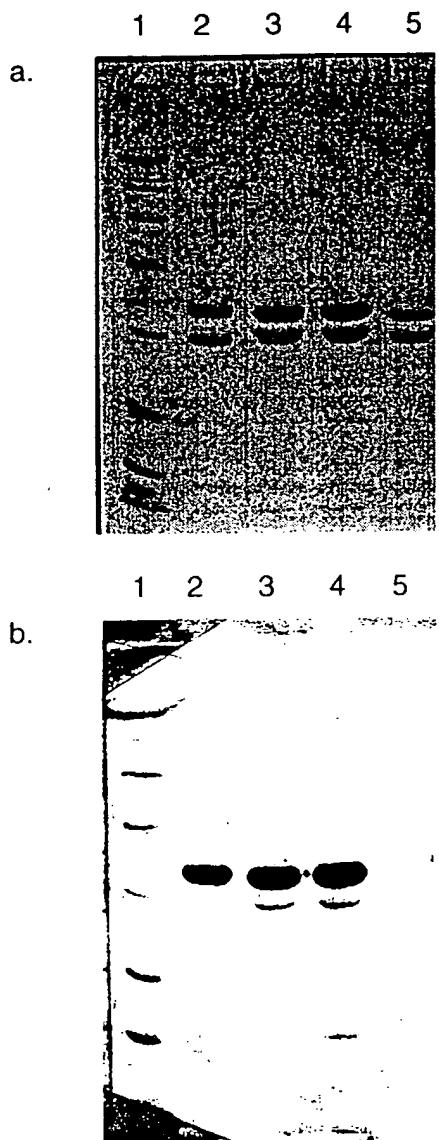


Figure 28

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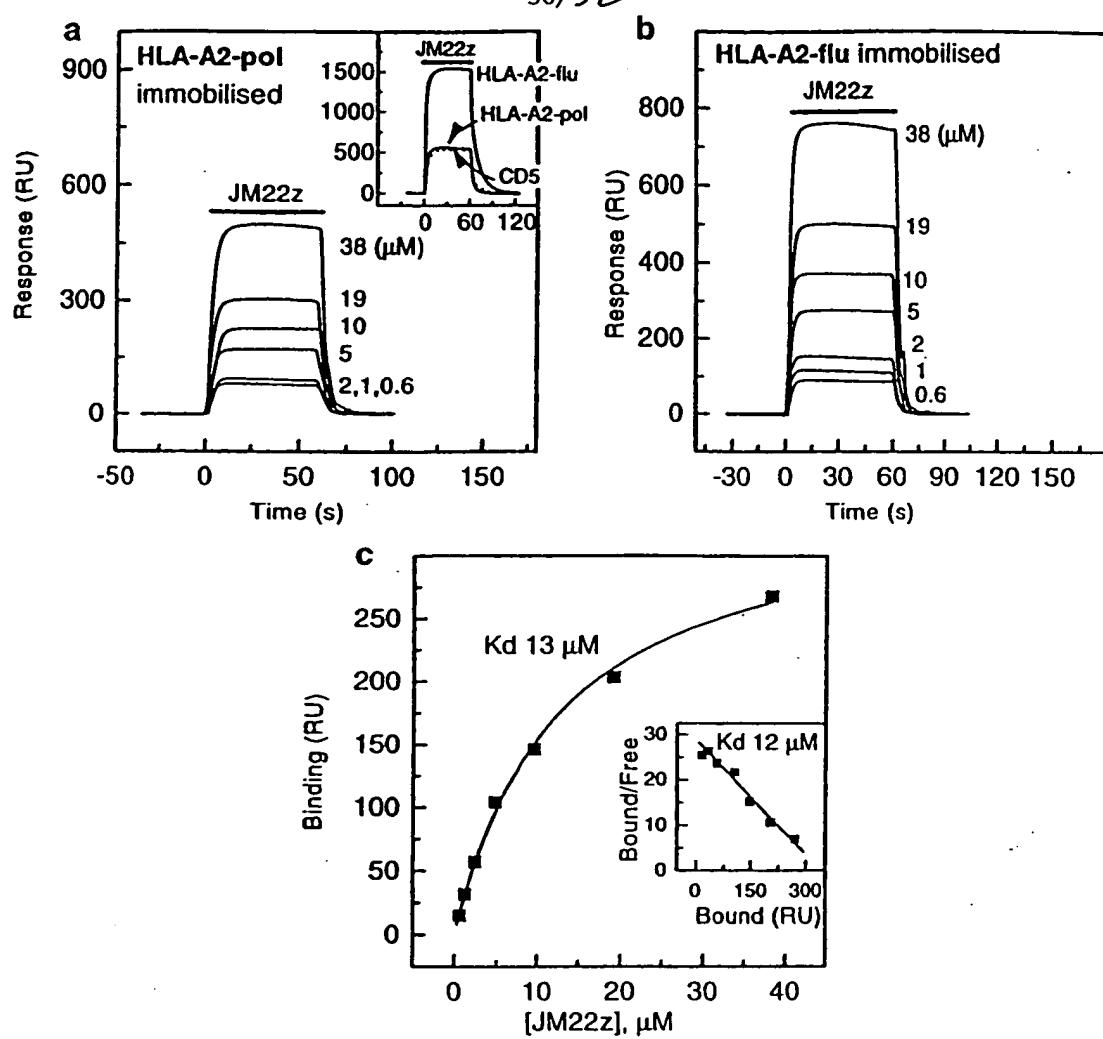


Figure 24

Figure 30

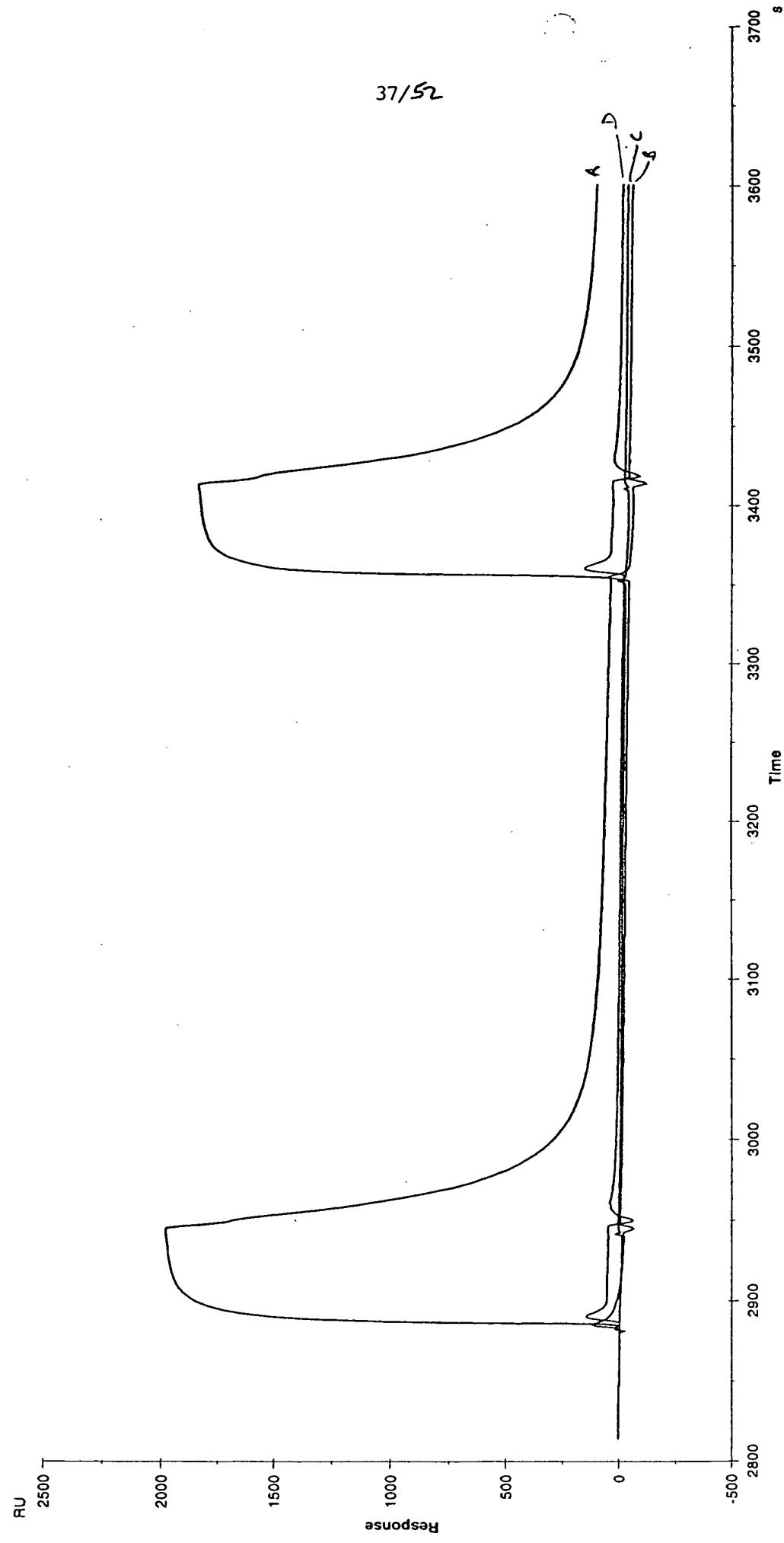
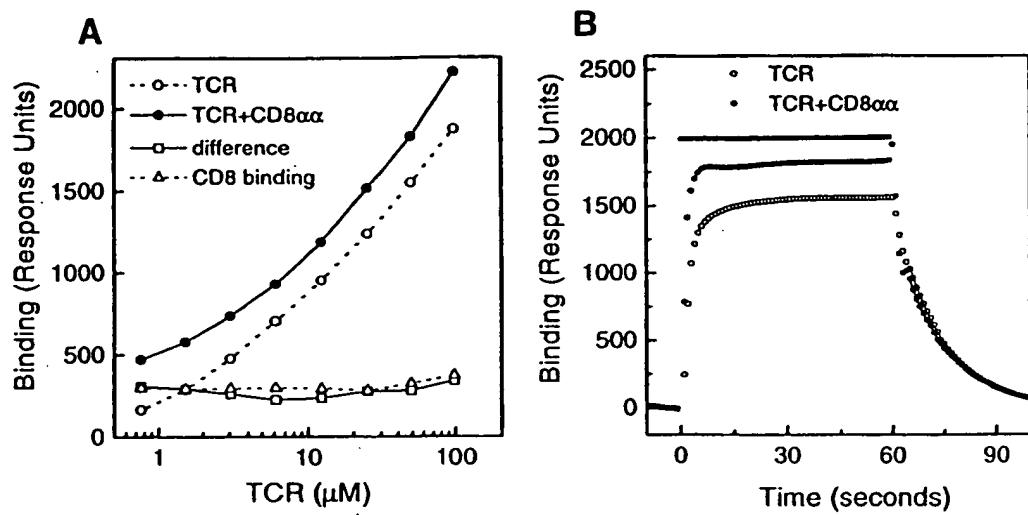


Figure 31



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FIGURE 32

TCR alfa>

M Q L L E Q S P Q F L S I Q E G E N L T
ATGCAaCTaCTaGAaCAaAGtCCTCAGTTCTAAGCATCCAAGAGGGAGAAAATCTCACT

V Y C N S S S V F S S L Q W Y R Q E P G
GTGTACTGCAACTCCTCAAGTGTCCCCAGCTAACATGGTACAGACAGGAGCCTGG

E G P V L L V T V V T G G E V K K L K R
GAAGGTCCCTGTCCTCGGTGACAGTAGTTACGGGTGGAGAAGTGAAGAAGCTGAAGAGA

L T F Q F G D A R K D S S L H I T A A Q
CTAACCTTCAGTTGGTGTGCAAGAAAGGACAGTTCTCCACATCACTGCGGCCAG

P G D T G L Y L C A G A G S Q G N L I F
CCTGGTGATAAGGCCTCTACCTCTGTGCAGGAGCGGGAGCCAAGGAAATCTCATCTT

G K G T K L S V K P N I Q N P D P A V Y
GGAAAAGGCACTAAACTCTCTGTAAACCAAATATCCAGAACCTGACCTGCGGTAC

Q L R D S K S S D K S V C L F T D F D S
CAGCTGAGAGACTCTAAATCCAGTGACAAGTCTGCTGCCTATTACCGATTTGATTCT

Q T N V S Q S K D S D V Y I T D K T V L
CAAACAAATGTGTCAAAAGTAAGGATTCTGATGTGTATATCACAGACAAAATGTGCTA

D M R S M D F K S N S A V A W S N K S D
GACATGAGGTCTATGGACTTCAAGAGCAACAGTGTGGCTGGAGCAACAAATCTGAC

F A C A N A F N N S I I P E D T F F P S
TTTGCATGTGCAAACGCCCTCAACACAGCATTATTCCAGAAGACACCTTCTCCCCAGC

<TCR alfa linker c-jun>

P E S S P G G R I A R L E E K V K T L K
CCAGAAAGTTCCcccgggGGTAGAATGCCCGCTGGAGGAAAAGTGAACACCTTGAAA

A Q N S E L A S T A N M L R E Q V A Q L
GCTCAGAACCTGGAGCTGGCGTCCACGGCCAACATGCTCAGGAAACAGGTGGCACAGCTT

K Q K V M N Y *
AACAGAAAGTCATGAACCTAG

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FIGURE 33

TCR beta>

M V D G G I T Q S P K Y L F R K E G Q N
ATGGTGGATGGTGGAAATCACTCAGTCCCCAAGTACCTGTTCAAGAAAGGAAGGACAGAAAT

V T L S C E Q N L N H D A M Y W Y R Q D
GTGACCCCTGAGTTGTGAACAGAACGATGCCATGTACTGGTACCGACAGGAC

P G Q G L R L I Y Y S Q I V N D F Q K G
CCAGGGCAAGGGCTGAGATTGATCTACTCACAGATAGTAAATGACTTTCAAGAAAGGA

D I A E G Y S V S R E K K E S F P L T V
GATATAGCTGAAGGGTACAGCGTCTCTGGGAGAAGAAGGAATCCTTCCTCTCACTGTG

T S A Q K N P T A F Y L C A S S S R S S
ACATCGGCCAAAAGAACCCGACAGCTTCTATCTGTGCCAGTAGTTGAGGAGCTCC

Y E Q Y F G P G T R L T V T E D L K N V
TACGAGCAGTACTCGGGCCGGGACCAGGCTCACGGTCACAGAGGACCTGAAAAACGTT

F P P E V A V F E P S E A E I S H T Q K
TTCCCACCCGAGGTCGCTGTGTTGAACCATCAGAACGAGATCTCCACACCCAAAAG

A T L V C L A T G F Y P D H V E L S W W
GCCACACTGGTGTGCCCTGGCACAGGCTTCTACCCGACCACGTGGAGCTGAGCTGGTGG

V N G K E V H S G V S T D P Q P L K E Q
GTGAATGGGAAGGAGGTGCACAGTGGGTCAGCACAGACCCGAGCCCTCAAGGAGCAG

P A L N D S R Y S L S S R L R V S A T F
CCCGCCCTCAATGACTCCAGATATCCCTGAGCACGCCCTGAGGGTCTCGGCCACCTTC

W Q N P R N H F R C Q V Q F Y G L S E N
TGGCAGAACCCCCGCAACCAACTCCGCTGTCAGTCCAGTTCTACGGGCTCTCGGAGAAT

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D E W T Q D R A K P V T Q I V S A E A W
GACGAGTGGACCCAGGATAGGGCAAACCTGTCACCCAGATCGTCAGCGCCGAGGCCTGG
<TCR beta linker c-fos>
G R A D P G G L T D T L Q A E T D Q L E
GGTAGAGCAGACcccgggGGTCTGACTGATACTCCAAGCGGAGACAGATCAACTTGAA

D K K S A L Q T E I A N L L K E K E K L
GACAAGAAGTCTGCGTTGCAGACCGAGATTCCAATCTACTGAAAGAGAAGGAAAACTA

E F I L A A Y *
GAGTTCATCCTGGCAGCTTACTAG

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FIGURE 34

TCR beta>

M V D G G I T Q S P K Y L F R K E G Q N
ATGGTGGATGGTGGAAATCACTCAGTCCCCAAGTACCTGTTAGAAAGGAAGGACAGAAT

V T L S C E Q N L N H D A M Y W Y R Q D
GTGACCCCTGAGTTGTGAACAGAACATTGACCACGATGCCATGTACTGGTACCGACAGGAC

P G Q G L R L I Y Y S Q I V N D F Q K G
CCAGGGCAAGGGCTGAGATTGATCTACTCACAGATACTAAATGACTTTAGAAAGGA

D I A E G Y S V S R E K K E S F P L T V
GATATAGCTGAAGGGTACAGCGTCTCTCGGGAGAAGAAGGAATCCTTCCTCTCACTGTG

T S A Q K N P T A F Y L C A S S S R S S
ACATCGGCCAAAAGAACCCGACAGCTTCTATCTGTGCCAGTAGTCGAGGAGCTCC

Y E Q Y F G P G T R L T V T E D L K N V
TACGAGCAGTACTTCGGGCCGGGCACAGGCTCACGGTCACAGAGGACCTGAAAAACGTT

F P P E V A V F E P S E A E I S H T Q K
TTCCCACCCGAGGTGCGTGTGTTGAACCATCAGAACAGAGATCTCCACACCCAAAAG

A T L V C L A T G F Y P D H V E L S W W
GCCACACTGGTGTGCCACAGGCTCTACCCGACCACGTGGAGCTGAGCTGGTGG

V N G K E V H S G V S T D P Q P L K E Q
GTGAATGGGAAGGAGGTGCACAGTGGGTCAGCACAGACCCGAGCCCTCAAGGAGCAG

P A L N D S R Y S L S S R L R V S A T F
CCCGCCCTCAATGACTCCAGATACTCCCTGAGCAGCCGCTGAGGTCTGGCACCTTC

W Q N P R N H F R C Q V Q F Y G L S E N
TGGCAGAACCCCGCAACCACTTCCGCTGTCAAGTCCAGTTCTACGGCTCTGGAGAAT

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D E W T Q D R A K P V T Q I V S A E A W
GACGAGTGGACCCAGGATAGGCACAAACCTGTCAACCGAGATCGTCAGGCCGAGGCCTGG

<TCR beta linker c-fos>

G R A D P G G L T D T L Q A E T D Q L E
GGTAGAGCAGACcccgggGGTCTGACTGATACTCCAAGCGGAGACAGATCAACTTGAA

D K K S A L Q T E I A N L L K E K E K L
GACAAGAAGTCTCGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAAAAACTA

linker Biotinylation tag>

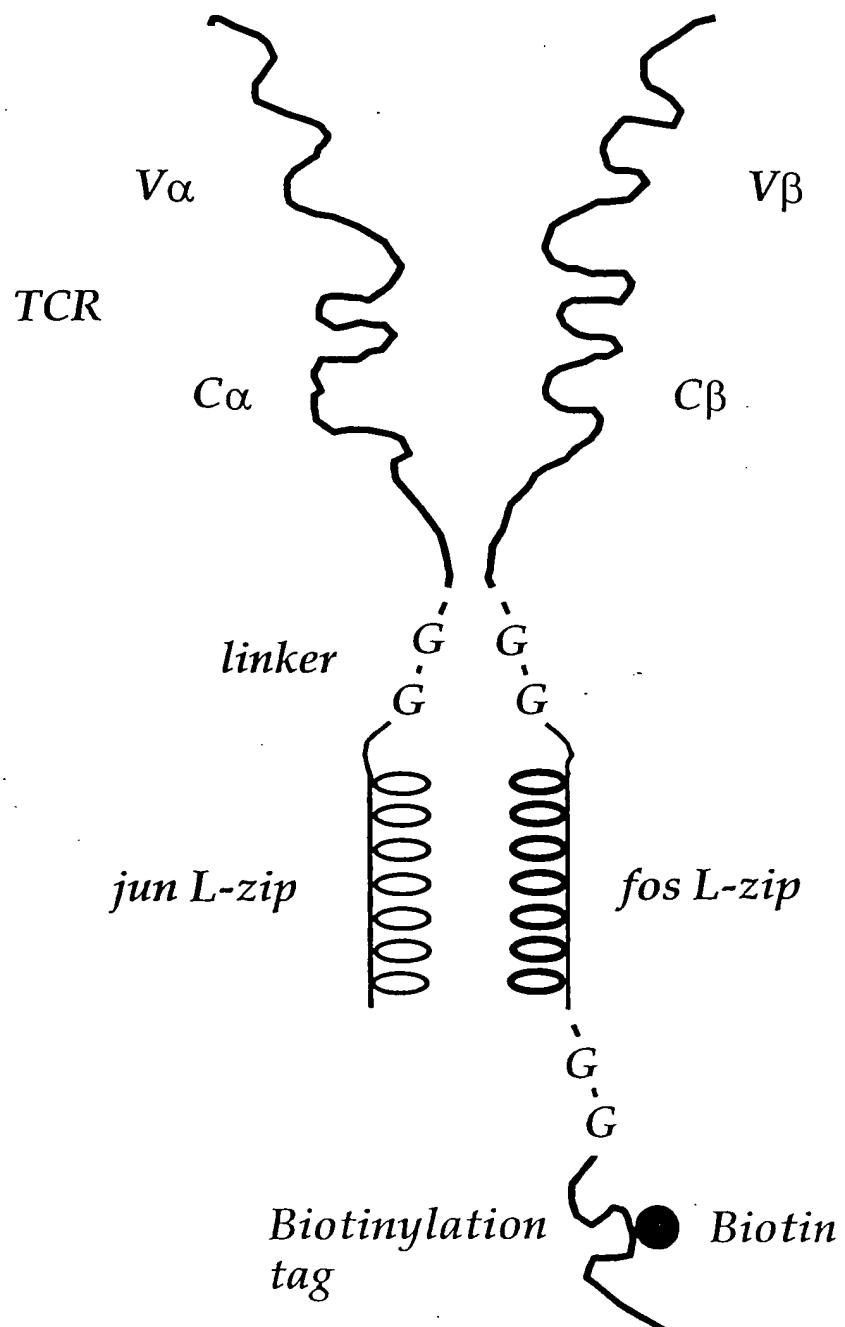
E F I L A A Y G S G G G L N D I F E A Q
GAGTTCATCCTGGCAGCTTACggatccGGTGGTGGTCTGAACGATATTTTGAAGCTCAG

K I E W H *

AAAATCGAATGGCATTAA

44152

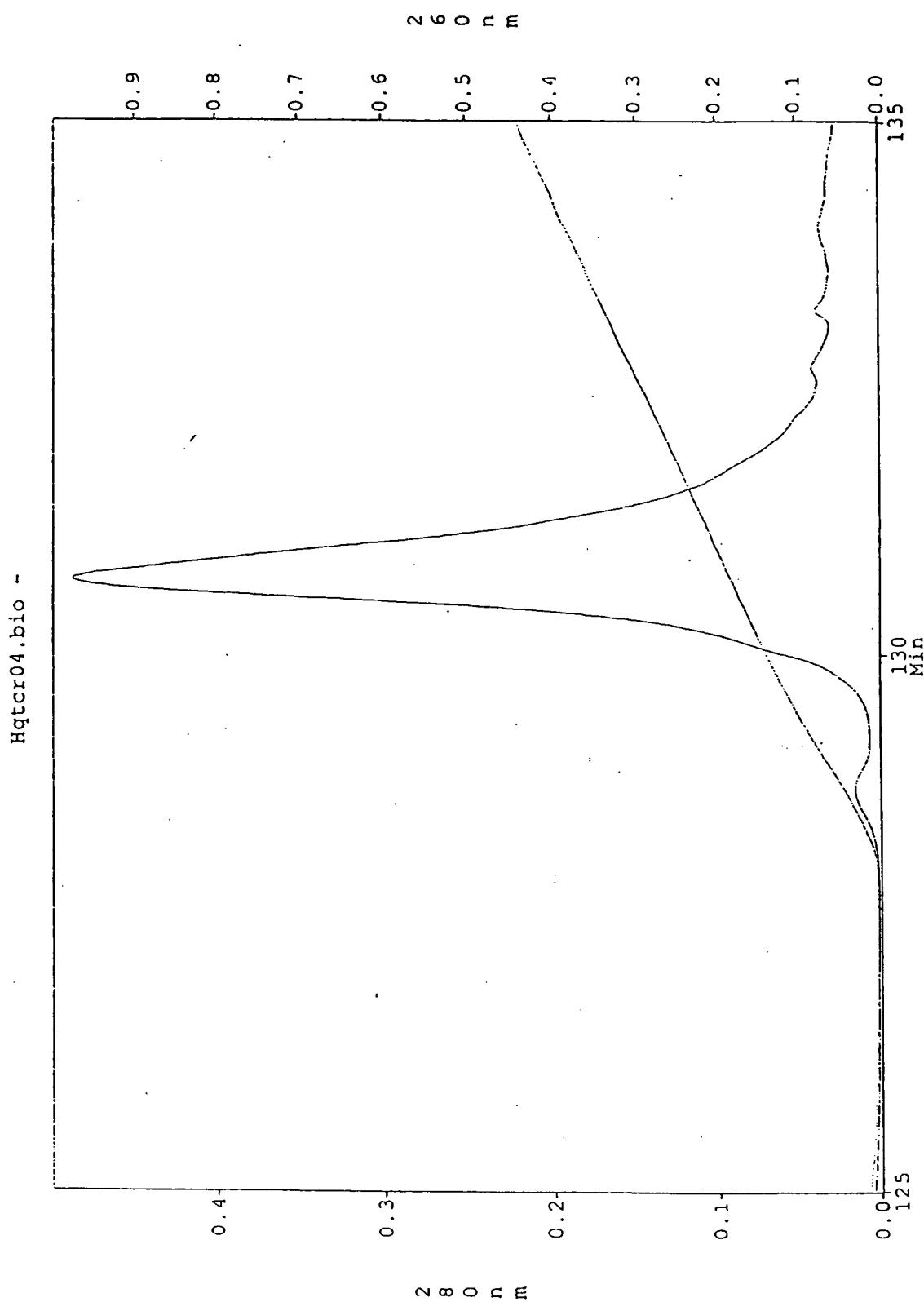
FIGURE 35



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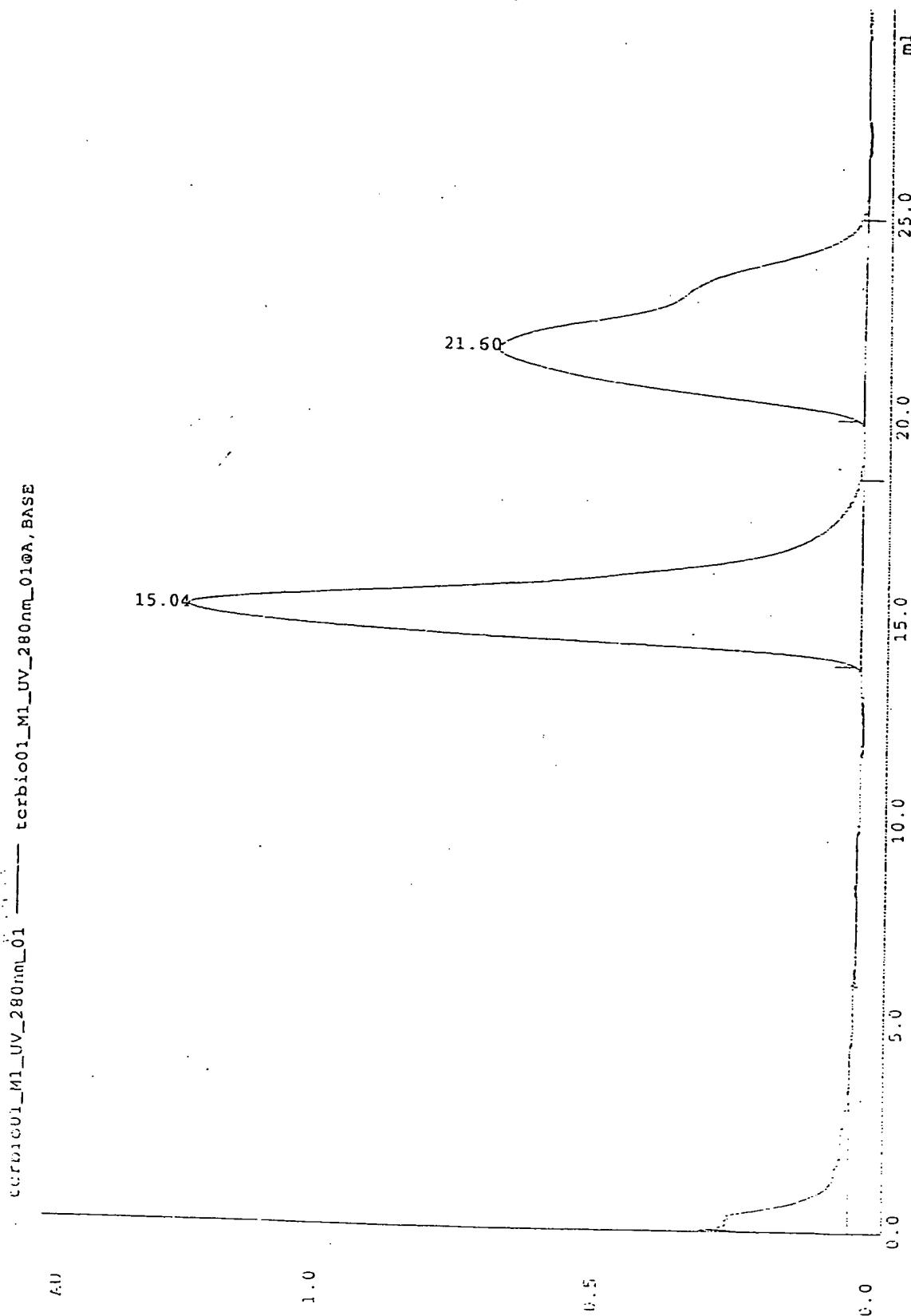
45/52

FIGURE 36



46152

FIGURE 37



47152

FIGURE 38

TCR alfa>
M Q K E V E Q N S G P L S V P E G A I A
atgCAGAAGGAACTGGAGCAGAACTCTGGACCCCTCAGTGTCCAGAGGGAGCCATTGCC

S L N C T Y S D R G S Q S F F W Y R Q Y
TCTCTCAACTGCACTTACAGTGACCGAGGTTCCCAGTCCTCTGGTACAGACAATAT

S G K S P E L I M S I Y S N G D K E D G
TCTGGAAAAGCCCTGAGTTGATAATGTCCATATACTCCAATGGTACAAAGAAGATGGA

R F T A Q L N K A S Q Y V S L L I R D S
AGGTTTACAGCACAGCTAACAAAGCCAGCCAGTATGTTCTCTGCTCATCAGAGACTCC

Q P S D S A T Y L C A V T T D S W G K L
CAGCCCAGTGATTCAAGCCACCTACCTCTGTGCCGTTACAACGTGACAGCTGGGGAAATTG

Q F G A G T Q V V V T P D I Q N P D P A
CAGTTGGAGCAGGGACCCAGGTTGTGGTCACCCAGATATCCAGAACCTGACCCTGCC

V Y Q L R D S K S S D K S V C L F T D F
GTGTACCACTGAGAGACTCTAAATCCAGTGACAAGTCTGTCTGCCTATTACCGATTTT

D S Q T N V S Q S K D S D V Y I T D K T
GATTCTCAAACAAATGTGTCACAAAGTAAGGATTCTGATGTATATCACAGACAAAAACT

V L D M R S M D F K S N S A V A W S N K
GTGCTAGACATGAGGTCTATGGACTTCAAGAGAACAGTGTGGCCTGGAGCAACAAA

S D F A C A N A F N N S I I P E D T F F
TCTGACTTGCATGTGCAAACGCCTCAACAAACAGCATTATTCCAGAAGACACCTCTTC

<TCR alfa linker c-jun>
P S P E S S P G G R I A R L E E K V K T
CCCAGCCCAGAAAGTCCcccggGGTAGAATGCCGGCTGGAGGAAAAAGTGAACACC

L K A Q N S E L A S T A N M L R E Q V A
TTGAAGCTCAGAACTCGGAGCTGGCGTCCACGGCAACATGCTCAGGGAACAGGTGGCA

Q L K Q K V M N Y *
CAGCTAACAGAAAGTCATGAACACTAG

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FIGURE 39

TCR beta>
M N A G V T Q T P K F Q V L K T G Q S M
atgAACGCTGGTGTCACTCAGACCCAAAATTCCAGGTCTGAAGACAGGACAGAGCATG

T L Q C A Q D M N H E Y M S W Y R Q D P
ACACTGCAGTGTGCCAGGATATGAACCATGAATACTGCTGGTATCGACAAGACCA

G M G L R L I H Y S V G A G I T D Q G E
GGCATGGGCTGAGGCTGATTCACTACTCAGTTGGTGGTACTCACTGACCAAGGGAGAA

V P N G Y N V S R S T T E D F P L R L L
GTCCCCAATGGCTACAATGTCCTCACAGATCAACCACAGAGGATTCCCGCTCAGGCTGCTG

S A A P S Q T S V Y F C A S R P G L A G
TCGGCTGCTCCCTCCCAGACATCTGTACTTCTGTGCCAGGCGGGACTAGCGGG

G R P E Q Y F G P G T R L T V T E D L K
GGCGACCAGAGCAGTACTCGGGCGGGCACAGGCTCACGGTCACAGAGGACTGAAA

N V F P P E V A V F E P S E A E I S H T
AACGTGTTCCCACCCGAGGTCGCTGTGTTGAGCCATCAGAAGCAGAGATCTCCACACC

Q K A T L V C L A T G F Y P D H V E L S
CAAAAGGCCACACTGGTGTGCCACAGGCTTACCCGACCACGTGGAGCTGAGC

W W V N G K E V H S G V S T D P Q P L K
TGGTGGGTGAATGGGAAGGAGGTGCACAGTGGGTCAAGCACAGACCCGAGCCCCCTCAAG

E Q P A L N D S R Y A L S S R L R V S A
GAGCAGCCGCCCTCAATGACTCCAGATAcgtCTGAGCAGCCGCTGAGGTCTCGGCC

T F W Q N P R N H F R C Q V Q F Y G L S
ACCTCTGGCAGAACCCCGCAACCACTCCGCTGTCAAGTCCAGTTCTACGGCTCTCG

E N D E W T Q D R A K P V T Q I V S A E
GAGAATGACGAGTGGACCCAGGATAGGGCAAACCTGTCAAGTCACCCAGATCGTCAGCGCCGAG

<TCR beta linker c-fos>
A W G R A D P G G L T D T L Q A E T D Q
GCCTGGGTAGAGCAGACcccgggGTCTGACTGATACTCCAAGCGGAGACAGATCAA

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L E D K K S A L Q T E I A N L L K E K E
CTTGAAGACAAGAAGTCAGCGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAA

K L E F I L A A Y G S G G G L N D I F E
AAACTAGAGTTCATCCTGGCAGCTTACggatccGGTGGTGGTCTGAACGATATTTTGAA

A Q K I E W H *
GCTCAGAAAATCGAATGGCATTAAAGCTT

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FIGURE 40

TCR alfa>

M Q Q K N D D Q Q V K Q N S P S L S V Q
atgCAACAGAAGAATGATGACCAGCAAGTTAACCATCCCTGAGCGTCCAG

E G R I S I L N C D Y T N S M F D Y F L
GAAGGAAGAATTCTATTCTGAACGTGACTATACTAACAGCATGTTGATTATTCTTA

W Y K K Y P A E G P T F L I S I S S I K
TGGTACAAAAAAATACCTGCTGAAGGT CCTACATTCTGATATCTATAAGTTCCATTAAG

D K N E D G R F T V F L N K S A K H L S
GATAAAAATGAAGATGGAAGATTCACTGTCTCTTAAACAAAAGTGCCAAGCACCTCT

L H I V P S Q P G D S A V Y F C A A M E
CTGCACATTGTGCCCTCCCAGCCTGGAGACTCTGCAGTGTACTTCTGTGCAGCAATGGAG

G A Q K L V F G Q G T R L T I N P N I Q
GGAGCCCAGAAGCTGGTATTGGCCAAGGAACCAGGCTGACTATCAACCAAATATCCAG

N P D P A V Y Q L R D S K S S D K S V C
AACCCCTGACCCCTGCCGTGTACCACTGAGAGACTCTAAATCCAGTGACAAGTCTGTCTGC

L F T D F D S Q T N V S Q S K D S D V Y
CTATTCAACGATTTGATTCTCAAACAAATGTGTACAAAGTAAGGATTCTGATGTGTAT

I T D K T V L D M R S M D F K S N S A V
ATCACAGACAAAATGTGCTAGACATGAGGTCTATGGACTTCAAGAGCAACAGTGTGTG

A W S N K S D F A C A N A F N N S I I P
GCCTGGAGCAACAAATCTGACTTGCATGTGAAACGCCCTCAACACAGCATTATTCCA

<TCR alfa linker c-jun>

E D T F F P S P E S S P G G R I A R L E
GAAGACACCTTCTCCCCAGCCCAGAAAGTCCcccgggGGTAGAATGCCCGGCTGGAG

E K V K T L K A Q N S E L A S T A N M L
GAAAAAGTGAAACCTTGAAAGCTCAGAACTCGGAGCTGGCTCCACGGCCAACATGCTC

R E Q V A Q L K Q K V M N Y *
AGGGAACAGGTGGCACAGCTAAACAGAAAGTCATGAACACTAG

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FIGURE 4

TCR beta>

M N A G V T Q T P K F Q V L K T G Q S M
atgAACGCTGGTGTCACTCAGACCCAAATTCCAGGTCTGAAGACAGGACAGAGCATG

T L Q C A Q D M N H E Y M S W Y R Q D P
ACACTGCAGTGTGCCAGGATATGAACCATGAATACTGTCCTGGTATCGACAAGACCCAA

G M G L R L I H Y S V G A G I T D Q G E
GGCATGGGCTGAGGCTGATTCAATTACTCAGTTGGTGTGGTACTGACCAAGGAGAA

V P N G Y N V S R S T T E D F P L R L L
GTCCCCAATGGCTACAAATGTCTCCAGATCAACCACAGAGGATTCCGCTCAGGCTGCTG

S A A P S Q T S V Y F C A S S Y P G G G
TCGGCTGCTCCCTCCCAGACATCTGTGTACTTCTGTGCCAGCAGTACCGAGGAGGGGG

F Y E Q Y F G P G T R L T V T E D L K N
TTTACGAGCAGTACTCGGGCCGGCACCAAGGCTCACGGTCACAGAGGACCTGAAAAAC

V F P P E V A V F E P S E A E I S H T Q
GTGTTCCCACCCGAGGTGCTGTGTTGAGCCATCAGAACAGAGATCTCCACACCCAA

K A T L V C L A T G F Y P D H V E L S W
AAGGCCACACTGGTGTGCCACAGGCTTCTACCCGACCACGTGGAGCTGAGCTGG

W V N G K E V H S G V S T D P Q P L K E
TGGGTGAATGGGAAGGAGGTGACAGTGGGTCAGCACAGACCCGAGCCCTCAAGGAG

Q P A L N D S R Y A L S S R L R V S A T
CAGCCCGCCCTCAATGACTCCAGATAcgtCTGAGCAGCCGCTGAGGTCTGGCCACC

F W Q D P R N H F R C Q V Q F Y G L S E
TTCTGGCAGgACCCCGCAACCACCTCCGCTGTCAAGTCCAGTTCTACGGGCTCTCGGAG

N D E W T Q D R A K P V T Q I V S A E A
AATGACGAGTGGACCCAGGATAGGGCAAACCCGTACCCAGATCGTCAGCGCCGAGGCC

<TCR beta linker c-fos>
W G R A D P G G L T D T L Q A E T D Q L
TGGGGTAGAGCAGACCCgggGGTCTGACTGATACTCCAAGCGGAGACAGATCAACTT

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E D K K S A L Q T E I A N L L K E K E K
GAAGACAAGAAGTCTGCAGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAAAAA

L E F I L A A Y G S G G G L N D I F E A
CTAGAGTTCATCCTGGCAGCTTACggatccGGTGGTGGTCTGAACGATATTTGAAGCT

Q K I E W H *
CAGAAAATCGAATGGCATTAAAGCTT